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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,669	03/03/2004	Fumiko Shiraiishi	Q80181	2713
23373 7590 12/04/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER SHEEHAN, JOHN P				
ART UNIT		PAPER NUMBER		
1793				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/791,669

**Applicant(s)**

SHIRAIISHI ET AL.

**Examiner**

John P. Sheehan

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 3-8, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9, 12, 15, 18, 21 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Status of the Claims**

1. Claims 1 to 28 are in this application. Claims 3 to 8, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23 and 25 to 28 are withdrawn from consideration as directed to non-elected inventions. Claims 1, 2, 9, 12, 15, 18, 21 and 24 are under examination.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 9, 12, 15, 18, 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murray et al. (Murray '119, US Patent Application Publication No. US 2001/0009119) taken in view of Denbigh (each of these references are cited by the Examiner in this Office action).

Murray '119 teaches a method of manufacturing a CuAu type magnetic particle (page 1, paragraphs 0009 and 0011) comprising, forming an alloy particle and converting the alloy particle to a magnetic particle (page 1, paragraph 0012 and Figure 10, Step 106). The formation of the alloy particle includes supplying a plurality of

reactants to a reaction vessel and mixing the reactants to cause the reactants to react with each other (page 1, paragraph 0012).

Denbigh teaches that proper mixing of the reactants in a reactor is essential and that improper mixing can result in dead space (page 8, the first paragraph under the heading, 1.5 The continuous stirred tank reactor (C.S.T.R.), that is, Denbigh teaches that mixing is a result effective variable.

The claims and Murray '119 differ in that Murray '119 is silent with respect to the specifics of the mixing of the reactants.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because as taught by Denbigh reactant mixing is a result effective variable and the optimization of a result effective variable such as the mixing in Murray '119's process is obvious. In re Aller, 105 USPQ 233, 235 (CCPA 1955), and see MPEP 2144.05, IIA, for complete discussion of this principle.

### ***Response to Arguments***

4. Applicant's arguments filed August 25, 2008 have been fully considered but they are not persuasive.
5. Applicants' arguments that Denbigh does not recognize the speed of the stirring vane as a result effective variable and that there is no rational reason why one of ordinary skill in the art would be motivated to arrive at Applicants' claimed peripheral speed are not persuasive. Denbigh teaches the use of a vane to mix the reactants in

the reaction vessel (Denbigh's Figure 4) and that stirring is the important characteristic of a continuous stirred tank reactor. It would stand to reason, that is, it is common sense and logical, that the speed of the mixing vane would be a crucial factor to the effectiveness of the stirring of reactants in the reactor. For example, a mixing vane that is barely moving would not be expected to provide adequate mixing. Further, there is nothing to indicate that the claimed mixing vane speed in any way differs from the mixing vane speed resulting from the application of Denbigh's disclosure to Murray '119's chemical reaction, *In re Best*, 195 USPQ 430, 434 (CCPA 1977).

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571)

272-1249. The examiner can normally be reached on T-F (7:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P. Sheehan/  
Primary Examiner, Art Unit 1793

/J. P. S./